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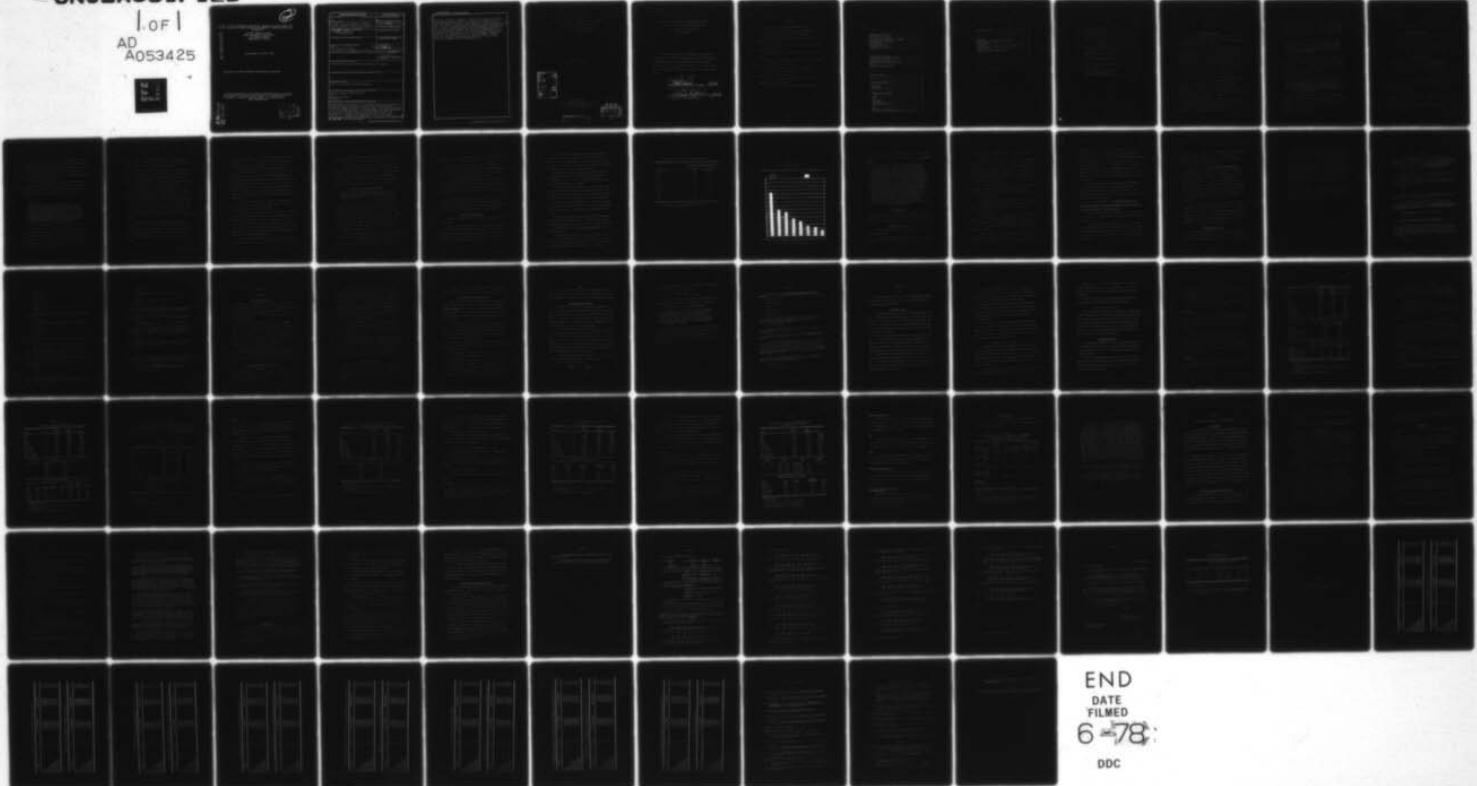
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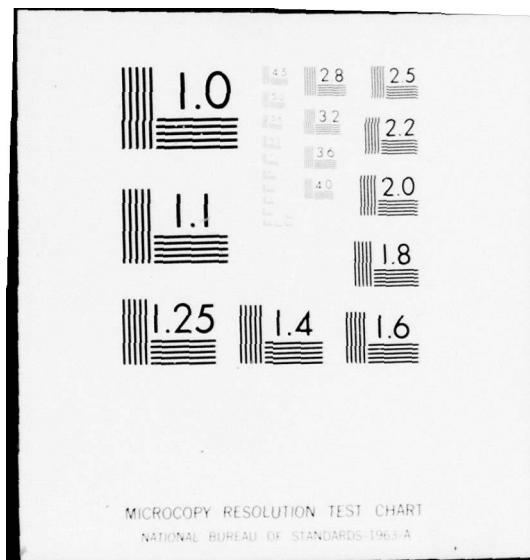
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A STUDY OF THE ATTITUDES OF UNIVERSITY ACADEMIC ADVISERS TOWARD THE
RESERVE OFFICERS TRAINING CORPS ON THE CAMPUS OF SOUTH DAKOTA STATE
UNIVERSITY

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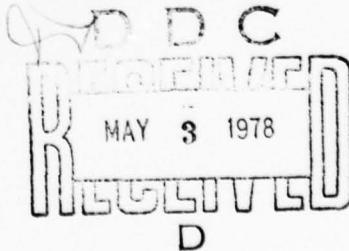
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Final Report 17 April 1978

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A thesis submitted to South Dakota State University, Brookings,
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cont should be offered to students. Ninety-seven percent said they would refer students to ROTC personnel if they did not have ROTC information requested by the students. Advisers were not sure they were doing a good job giving their advisees information on ROTC. Nearly 50 percent were in the disagreement continuum on the statement that academic advisers are informed about ROTC. The null hypothesis--there is no significant difference in the responses of individuals in the survey because of differences among the respondents in sex, age classification, academic rank, or military background--was rejected for six of the 24 Likert-summated scaled statements. ←

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ADVISERS TOWARD THE RESERVE OFFICERS TRAINING
CORPS ON THE CAMPUS OF SOUTH DAKOTA
STATE UNIVERSITY

BY

TERRY MICHAEL MONRAD

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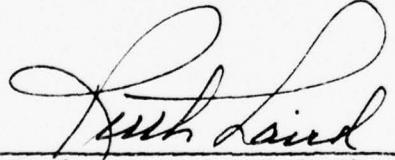
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CORPS ON THE CAMPUS OF SOUTH DAKOTA
STATE UNIVERSITY

This thesis is approved as a creditable and independent investigation by a candidate for the degree, Master of Science, and is acceptable for meeting the thesis requirements for this degree. Acceptance of this thesis does not imply that the conclusions reached by the candidate are necessarily the conclusions of the major department.



Professor Ruth Laird, Thesis Adviser 4/17/78
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Dr. Richard W. Lee, Chairman,
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TNN

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CHAPTER I

INTRODUCTION

Purpose of the Study

Purpose of this study is to determine the attitudes of university faculty academic advisers at South Dakota State University toward the Reserve Officers Training Corps (ROTC).

The study can be used by ROTC personnel to identify attitudes of advisers toward ROTC and to develop effective public relations¹ programs for a segment of the ROTC public. The findings will give ROTC personnel information on academic advisers' attitudes toward ROTC according to sex, age classification, faculty rank, and military background. ROTC personnel, with the information provided in this study, would be able to identify certain groups of academic advisers who would be important targets for increased public relations efforts.

In discussing public relations at universities, Professors Scott M. Cutlip and Allen H. Center wrote, "The professors' cooperation is essential . . . the best way to win the faculty's cooperation is through patient internal education."² The professors' (academic advisers') cooperation, or more precisely their favorable attitudes toward ROTC, is essential for a successful ROTC program.

In a paper prepared for the United States Army War College, Joseph V. Spitler wrote that the most important factors influencing attitudes toward ROTC are the attitudes of members of the faculty and attitudes of key members of the administration. When there is

dissatisfaction with ROTC among faculty and administration, it is because of attitudes about the military industrial complex, academic content of the ROTC program, academic credit given for ROTC, military weapons and personnel on campus, and, to a slight degree, academic rank given to ROTC staff.³

Billy J. Wright, an Army researcher, quoted a 1974 study:

Nothing turns off a student like a lack of interest or enthusiasm. Thus, when a faculty member discourages participation in ROTC because he suspects it takes too much time or because he knows little . . . about the subject (and has little inclination to learn), the professor may as well be on the side of those opposed to the program.⁴

In Wright's study of 823 ROTC cadets from 90 institutions, "23.8 percent [of the cadets] indicated that the most important thing that could be done to attain higher ROTC enrollment is to get more encouragement from the college professors." Another 23 percent listed this as the second most important influence.⁵

The real question, according to Wright, is: Why do some faculty members have an adverse or apathetic attitude toward ROTC?

. . . some part [of the answer] lies with the changing public attitude regarding the general use of military force as an instrument of national policy. . . . Does it follow, then, that ROTC is only a "symbol" at which the attitude is directed? Or, can it be that ROTC is opposed because so little is actually known about it? Probably both.⁶

James M. Abraham, in his study of attitudes at universities toward the granting of academic credits for ROTC, wrote, "In pursuit of the data needed to examine the concept of attitudes, . . . the appropriate tool would be a questionnaire to be utilized on faculty members . . . and administrators."⁷

This thesis examines, by questionnaire, the attitudes toward ROTC of the 302 academic advisers at South Dakota State University.

Statement of the Problem

Do academic advisers' attitudes toward ROTC vary according to sex, age, faculty rank, and military background?

In order to investigate the problem and understand ROTC's involvement in the university community, it is useful to review the development of the ties between the military and academic spheres.

ROTC and the University

As long as your colleges and universities view the teaching of military and naval science in its true perspective, then there will be no undue military influence in our government, and the civilian-military relationship which we cherish will be preserved. Dangers could only arise when you might fail to provide proper, and sufficient facilities and leadership for the military instruction for which you are responsible by the Land-Grant laws.

Gen. Omar N. Bradley⁸

The citizen-soldier concept of national security is deep-rooted in United States heritage. Washington's Continental Army was not a regular or standing Army in the modern sense. Every American in the force was a citizen-soldier.⁹

In 1807, Georgia required that every man between 18 and 45, except ministers, attend military muster five times a year. Since most University of Georgia students were in this age bracket, they attended the drills. E. Merton Coulter, in College Life in the Old South, called the militia drill "the earliest example of military training in American colleges."¹⁰

To provide trained officers for state militias, the first non-career military college, Norwich University, was established in Vermont in 1819 by Capt. Alden Partridge. Originally called American Literary Scientific and Military Academy, it is known as the forerunner of ROTC.¹¹ Existing colleges seemed a natural place, in addition to West Point, to incorporate officer training.

James E. Pollard, an historian who has studied Land-Grant universities, wrote, "In time, other military schools were established, but there was no real thought of military training at the college level on a broad scale until the passage of the Morrill Act¹² of 1862."¹³

Pollard said:

By their very nature and because of the special circumstances under which they were born, the Land-Grant colleges and universities from the beginning have had a special relationship to military training and to national defense. Under the Act of 1862 which paved the way for their creation in the individual states, Congress required that, in order to share in the federal benefits, each of them should offer military training. Whether this would be compulsory for all male students was left to each state to determine, but in the main this was almost universal practice and policy until recent years.¹⁴

Lack of trained leaders for the United States Army during the Civil War had caused concern. The Morrill Act, signed by President Lincoln, provided for the training of junior officers to relieve officer deficiencies made apparent by the war.¹⁵ The act was not specific on the nature of the training, and little assistance was provided by the government other than normal Land-Grant funds. Courses of instruction varied greatly among schools.¹⁶

After 1900, the War Department began to show interest, and in 1909 the chief of staff wrote that "the student might obtain a good idea of the essentials of a company officer's duty."¹⁷

Several developments occurred between 1912 and 1916 to launch the nation in the direction of permanent training of officers at Land-Grant schools. Passage in 1916 of the National Defense Act was of special concern and importance to the Land-Grant colleges¹⁸ because of the Act's provisions for Reserve Officers Training Corps.

By the time the United States entered World War I in 1917, colleges had placed 90,000 officers in the reserve pool. In 1917 and 1918 the majority of these officers were called to active duty.¹⁹ After World War I, steps were taken to rebuild the ROTC program. There were 191 college and university ROTC units by June 1919. Enrollment in the basic course (normally the first two years of ROTC) was compulsory in Land-Grant colleges and at some private institutions. The junior and senior years (advanced ROTC) were on a selective, voluntary basis.²⁰

In what was perhaps a natural letdown after World War I, a strong pacifist element made itself heard in the late twenties and early thirties. One of its targets, especially of some churches, was ROTC. Efforts were made through political and other pressures to have ROTC abolished or at least made optional in colleges and universities.²¹

By the mid-thirties, 17 colleges had dropped ROTC. Antagonism developed between the military and academe regarding the acceptance of ROTC instruction as a legitimate educational curriculum.²²

Early in 1940, the Army's need for a large number of junior officers in a short time required a source other than ROTC. To meet the demands, the Army established an officer candidate school program. This program produced commissioned officers in 90 days as compared with the 4 years required by ROTC. Army ROTC was suspended in 1943 after providing a pool of 100,000 reserve officers in World War II.²³ As a consequence of the suspension, the Army ROTC program in colleges emerged from World War II in a state of disorganization and demoralization.²⁴

ROTC was re-established in 1945. Between 1945-50, Air Force and Navy ROTCs were established. By 1950 approximately 100,000 students were enrolled in ROTC on 190 campuses.²⁵

When the Korean conflict began, Army ROTC expanded to 228 units. The program was assisted by the passing of the Universal Military Training and Service Act of 1951. The act said that all able-bodied young men would be liable for military service for eight years, two of which were to be served on active duty. Students were deferred if they were enrolled in advanced ROTC; however, they were required to serve two years on active duty after graduation.²⁶

In 1955, when the number of commissioned officers exceeded the Army's requirements, the obligation was changed to include a category

of six months of active duty and seven and one-half years in the reserve. This procedure remained unchanged until 1964.²⁷

In 1964, Congress passed the ROTC Vitalization Act. Its purpose was to improve ROTC programs and provide a steady flow of junior officers. Changes included: (1) establishment of a two-year program in addition to the four-year program, (2) a scholarship program, (3) an allowance increase to \$50 a month, and (4) a cross-enrollment program for students attending colleges not having an ROTC unit.²⁸

ROTC and South Dakota State University

As you know, my relationship with the ROTC program began at South Dakota State University in 1919 and ever since, I have retained a strong affection for the university and a continued commitment to ROTC.

Gen. Omar N. Bradley.²⁹

South Dakota State University ROTC has a long and colorful history. Capt. Omar N. Bradley was assigned to South Dakota State University in September 1919 as Professor of Military Science. When he was transferred to the military academy at West Point on 1 September 1920, Maj. James A. Van Fleet [later to become General Van Fleet of Korean War fame] was assigned as his replacement. Bradley became General of the Army and commanded the largest group of combat forces in world history during World War II.³⁰

The first classes at South Dakota State University, non-military and military, began in 1884. When the Dakota Territory became a state in 1889, the college was subject to provisions of the Merrill Act. Army ROTC history files at South Dakota State University read, "In

1886, breech loading muskets and uniforms were furnished. Lectures, recitations and drills formed the instruction in military.³¹

The detachment was known as "Little West Point" and "West Point of the Plains" for its consistently high performance during and between World Wars I and II. A pennant proclaiming this recognition flew on the South Dakota State University flagpole.³²

In 1972 South Dakota State University Army ROTC was one of 10 units selected nationwide for a coeducational ROTC test program, and it was the first to enroll and graduate women. From 1924 to 1977, the unit commissioned 2,368 officers from Army ROTC and 733 from Air Force ROTC.³³

In 1969, military training became voluntary.³⁴ The decision, made by the Board of Regents, affected the three state colleges in South Dakota offering ROTC: South Dakota State University, University of South Dakota, and South Dakota School of Mines and Technology.

Decline in ROTC Enrollment

There was a dramatic decline in enrollment, nationwide, from 1967 onward.³⁵

During the 1960s, with national focus on Vietnam and Cambodia, college campuses became centers of discontent with the United States. ROTC units found themselves at stage center, with many students and faculty attacking ROTC and ROTC facilities. In April and May 1970, at least 25 ROTC buildings were damaged by fire.³⁶

Several programs to attract students to ROTC were passed by Congress to increase ROTC enrollment. They included raising the number of ROTC scholarships to 6,500 and raising the monthly pay to \$100. Women were admitted in the program. By 1973, ROTC was elective (rather than mandatory) in all but a few schools.³⁷

Wright said, "However, in spite of the numerous changes and innovations, at the start of the 1973-74 school year, enrollment figures were at an all-time low . . . --the President had announced the end of the draft in January 1973."³⁸

In school year 1974-75, the enrollment picture changed. For the first time in a number of years, enrollment exceeded that of the previous year. "However, to presume that all problems have been solved appears to be more illusion than reality," according to Wright.³⁹

Although enrollment nationwide has been increasing, shortages of officers produced from ROTC are still predicted. In 1975, shortages of about 3,000 officers a year for five years were predicted by the Army.⁴⁰

ROTC units at South Dakota State University have commissioned fewer officers each year since 1970-71. Army ROTC commissionings in that span have dropped from 170 to 28 in the 1976-77 school year. During the same period, Air Force commissionings dropped from 52 to 18 (see Tables 1 and 2).

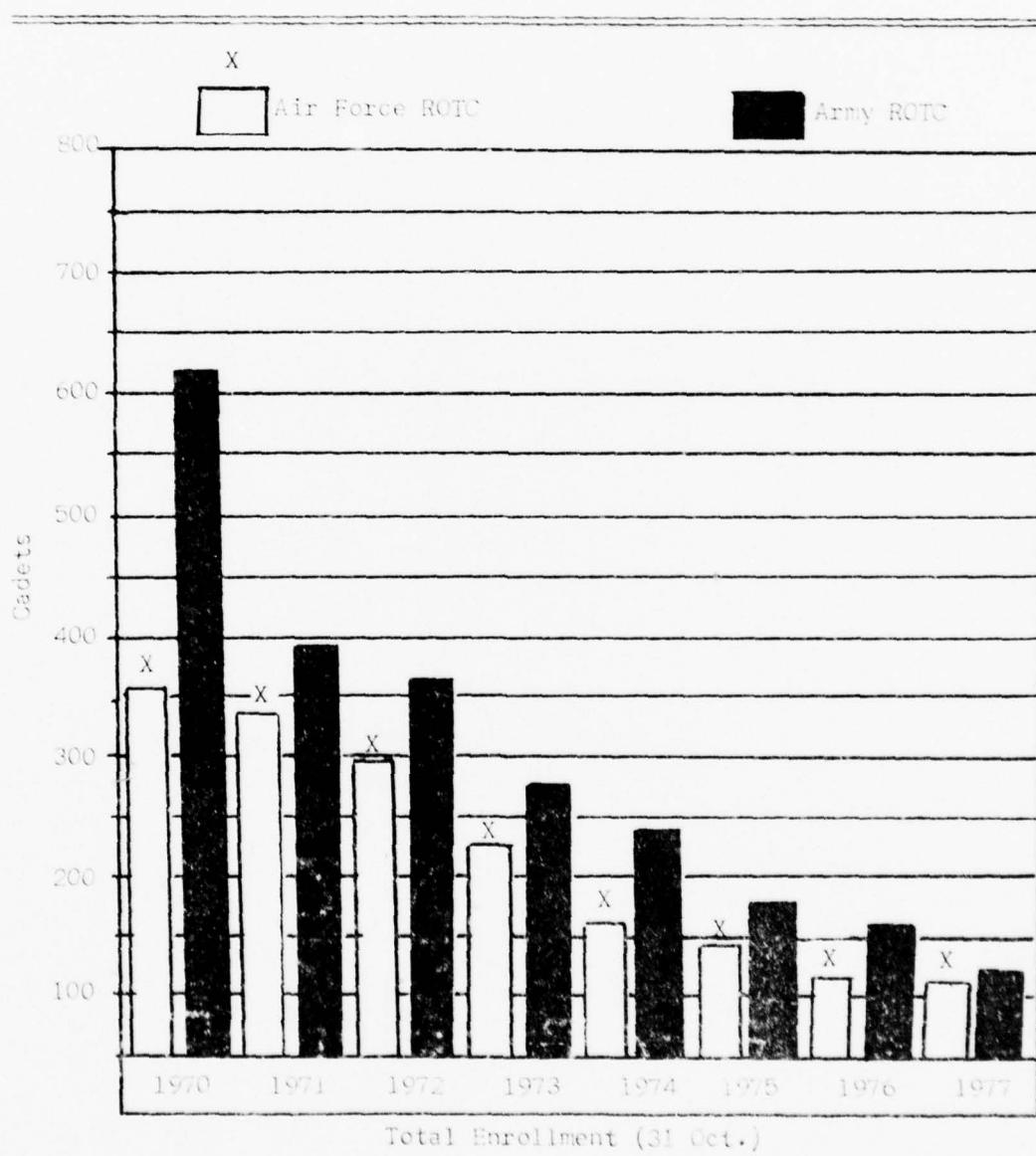
South Dakota State University ROTC units are required to have at least 17 junior cadets or be placed on probation. The Air Force ROTC unit is on probation (1977-8). After two years on probation, the respective services decide whether to eliminate the program.⁴¹

TABLE 1
SOUTH DAKOTA STATE UNIVERSITY ROTC ENROLLMENT

School Year	Number of Officers Commissioned	
	Army	Air Force
1969-70	177	25
1970-71	170	52
1971-72	137	44
1972-73	111	36
1973-74	43	36
1974-75	33	23
1975-76	30	20
1976-77	28	18

Source: Army and Air Force ROTC, South Dakota State University, January 1978.

TABLE 2
SOUTH DAKOTA STATE UNIVERSITY ROTC
ENROLLMENT TRENDS



Source: Air Force ROTC, South Dakota State University, January 1978.

Wright asked, "In view of the shortfall . . . a basic question seems pertinent: Why not use another system?" He quoted Commander's Digest:

But why, then, ROTC? Why not just double or triple the size of the academies? Or expand the service-operated officer candidate schools? There are many factors involved in the responses to these questions. Considering the quality of the officers produced, the length of time involved, and the resources necessary, neither of these sources alone will quite meet the needs of the Armed Forces to fulfill the qualitative and quantitative objectives as well as the combined use of them with the ROTC. The service academies are counted on for a large percentage of the career officers, and the ROTC graduates similarly furnish a significant percentage of reserve officers for active duty. Those ROTC graduates who do not stay on as career officers provide a constant highly trained input to many reserve units around the country, bringing current experience to those organizations upon which we all depend so heavily in times of significant and rapid mobilization. Without ROTC, the military would be separated from the intellectual centers of the public it is supposed to serve. When we stop encouraging intellectual leaders to serve as officers, we become inbred and self-centered; we also cut off the military experience that permits intellectuals to make informed appraisals of the military.⁴²

Null Hypothesis

There is no significant difference in the responses of individuals in the survey because of differences among the respondents in sex, age classification, academic rank, or military background.

Review of Literature

Two dissertations were written in 1970 relating to faculty attitudes toward ROTC.

John E. Davis investigated the relationship between the attitudes of selected sophomore ROTC students, non-ROTC students, parents

of the students, and university faculty toward the ROTC programs at the University of Oklahoma.⁴³

Davis found: (1) there was general agreement among respondents on the purpose of the armed forces, (2) all groups felt military officers educated in civilian institutions lessens the possibility of a military clique overthrowing the government, (3) ROTC should be voluntary, (4) faculty overwhelmingly endorsed ROTC on campus, and (5) 61 percent of the faculty agreed ROTC instructors should be entitled to all rights and duties of faculty.⁴⁴

Edgar A. Eldridge, in a dissertation written at the University of Virginia, studied the opinions and attitudes of selected naval officers and civilian educators toward the Naval ROTC program at 54 colleges and universities.⁴⁵

Eldridge said that literature suggested that opinions and attitudes toward Naval ROTC were closely related to perceptions concerning the relationship between the military and higher education in general, including ROTC.

His study explored: (1) differences in educational philosophies of the military services and higher education, (2) specific internal issues, and (3) possible future changes in the ROTC program.⁴⁶

Like Davis, Eldridge used a questionnaire. Attitudes of the groups were compared.

Eldridge concluded: (1) educators agreed that higher education has a responsibility to support national defense, (2) civilian educators were less supportive of Naval ROTC than were Professors of

Military Science and civilian educator members of the Association of Naval ROTC, (3) all groups of educators agreed that universities should be a major source of military officers and were strongly opposed to service academies as sole sources of officers, (4) faculty and students said opposition to ROTC is undesirable, (5) educators supported part credit for ROTC, and (6) geographic location did not appear to be a major factor affecting attitudes toward the Naval ROTC program or the relationship between higher education and the military in general.⁴⁷

Computer searches by the Bibliographic Center for Research, Denver, Colorado, were conducted in March and November 1977. Data bases searched included Education Resources Information Center and Psychological Abstracts. The computer searches revealed research conducted at the Army War College.⁴⁸

Key sources for research were Masters Abstracts; American Doctoral Dissertations; The Reader's Guide to Periodical Literature; Journalism Abstracts; and Statutes at Large.

Several resources, cited in Chapter II, were used during the construction of the questionnaire and the preparation for statistical analysis.

The review of literature was broken down into these areas: (1) ROTC historical material, (2) attitudes toward ROTC, (3) theses and dissertations, (4) Department of Defense literature, (5) statistical and behavioral research references, and (6) questionnaire writing procedures.

The first four categories of literature have been discussed and footnoted in preceding pages. The fifth category, statistical and behavioral literature, provided information not only on statistical procedures but also on attitude measurement.

Fred N. Kerlinger, in Foundations of Behavioral Research, defined attitudes as organized predispositions to think, feel, perceive, and behave toward a referent or cognitive object. He differentiated between attitudes and traits. A trait is a relatively enduring characteristic of the individual to respond in a certain manner in all situations. Kerlinger said that a trait has subjective reference; an attitude has objective reference. One who has a hostile attitude toward foreigners may be hostile only to foreigners, but one who has the trait hostility is hostile toward everyone (at least potentially).⁴⁹

Cutlip and Center explained the distinction between opinion and attitude. They said an opinion is the expression of an attitude on a controversial issue while an attitude is a predisposition to respond in a given way to a given issue. Although distinctly separate concepts, there is continuing interaction between inwardly held attitudes and outwardly expressed opinions.⁵⁰

Limitations of the Study

This study is not intended to be the final word on obtaining faculty attitudes toward ROTC, nor does it suggest that the results will be the only information necessary for an ROTC unit to establish

an effective faculty public relations program. It is hoped that this study will serve as a model for future studies conducted by defense department agencies attempting to gauge attitudes toward ROTC.

The obvious limitation is that the study is conducted at only one university. The entire population of academic advisers was surveyed with emphasis on obtaining a high percentage return--85 percent did respond. Eldridge's study (discussed earlier) showed that geographic location did not appear to be a major factor affecting attitudes toward [Naval] ROTC or the relationship between higher education and the military.

This study hopes to show what faculty (academic advisers) attitudes are toward ROTC at one midwestern university. In addition, attitudes toward the military in general and, to a lesser degree, attitudes toward advising are examined.

Footnotes

¹Of the many definitions given for public relations, one given by Cutlip and Center states: "Public relations is the planned effort to influence opinion and practice through socially responsible performance based on mutually satisfactory two-way communication," in Scott M. Cutlip and Allen H. Center, Effective Public Relations (Englewood Cliffs, N.J.: Prentice-Hall, Inc., 1952), p. 2.

²Cutlip and Center, p. 590.

³Joseph V. Spitler, Jr., "Army ROTC: How to Revitalize the Program" (research paper, U.S. Army War College, 1971), p. 12.

⁴"The Future of Army ROTC," quoted in Billy J. Wright, "Arms and the Campus in 1975: Army ROTC in Transition" (research project, U.S. Army War College, 1975), p. 5.

⁵Wright, p. 25.

⁶Ibid.

⁷James M. Abraham, "A Study of Attitudes at Several Universities Toward the Granting of Academic Credits for ROTC," (research proposal, U.S. Army War College, n.d.), p. 2.

⁸Gen. Omar N. Bradley, chairman, Joint Chiefs of Staff, speaking to American Agricultural Colleges and Experiment Stations convention, quoted in James E. Pollard, Military Training in the Land-Grant Colleges and Universities, n.p.: The Ohio State University, n.d.), p. 122.

⁹America in Arms, 1941, quoted in Wright, p. 5.

¹⁰Pollard, p. 3.

¹¹ROTC: Campus Pathways to Service Commissions, 1965, quoted in Wright, p. 5.

¹²The Morrill Act of 1862 donated public lands to the states for the benefit of Agricultural and the Mechanic Arts. The states had to "support" at least one college where the leading object shall be, without excluding other scientific and classical studies, and including military tactics, to teach such branches of learning as are related to agriculture and the mechanic arts. . . . , Morrill Act, 12 Stat. 503 (1862).

¹³Pollard, p. 3.

¹⁴Ibid., p. vi.

¹⁵Ibid., p. 1.

¹⁶Spitler, p. 6.

¹⁷Pollard, p. 4.

¹⁸National Defense Act, 39 Stat. 166 (1916).

¹⁹Wright, p. 6.

²⁰ROTC: Campus Pathways to Service Commissions, 1965, quoted in Wright, p. 7.

²¹Pollard, p. 9.

²²Education and Military Leadership, 1965, quoted in Wright, p. 7.

²³Ibid., p. 8.

²⁴Pollard, p. 103.

²⁵Spitler, p. 9.

²⁶Universal Military Training and Service Act, 65 Stat. 79 (1951).

²⁷"The Future of Army ROTC," 1974, quoted in Wright, p. 9.

²⁸ROTC Vitalization Act, 78 Stat. 1064 (1964).

²⁹Gen. Omar N. Bradley to Col. Vernon L. Watkins, 12 May 1975, South Dakota State University ROTC, Brookings.

³⁰"SDSU Part of Omar Bradley Story," South Dakota State University News Release, 28 March 1972.

³¹"Organization History File," South Dakota State University, Army ROTC, n.d.

³²Ibid.

³³Ibid.

³⁴The Cadet Colonel from SDSU appeared before the Board of Regents in 1968 speaking in favor of voluntary ROTC. This writer, then a cadet Lieutenant Colonel and a writer for the student newspaper, wrote an editorial favoring voluntary versus mandatory ROTC.

³⁵ Wright, p. 12.

³⁶ Military Review, 1974, quoted in Wright, p. 12.

³⁷ Wright, p. 12.

³⁸ Soldiers, 1974, quoted in Wright, p. 14.

³⁹ Wright, p. 14.

⁴⁰ Figures provided by the Department of the Army, Deputy Chief of Staff for Personnel staff on 15 March 1975, included shortfalls FY78-80 as 2,390, 3,396, and 3,129 officers.

⁴¹ Interview with Capt. Gary Stephens and Maj. Francis Neumann, assistant professors of military science, SDSU ROTC, Brookings, S.D., 10 January 1978.

⁴² Commanders Digest, 25 April 1974, quoted in Wright, p. 20.

⁴³ John E. Davis, "A Comparative Study of the Attitudes of College Sophomore ROTC Students, Selected Sophomore Non-ROTC Students, Parents of Both Groups of Students and University Faculty Toward the ROTC Programs on the Campus of the University of Oklahoma" (Ph.D. dissertation, The University of Oklahoma, 1970), p. 169.

⁴⁴ Ibid.

⁴⁵ Edgar Ashton Eldridge, "Attitudes of Selected Naval Officers and Civilian Educators Toward the Naval ROTC Program" (Ph.D. dissertation, University of Virginia, 1970).

⁴⁶ Ibid.

⁴⁷ Ibid.

⁴⁸ The Army War College is a post-graduate school which prepares selected senior officers (and civilians) for command and high level staff duty with emphasis on Army doctrine and operations and the advancement of interdepartmental and interservice understanding.

⁴⁹ Fred N. Kerlinger, Foundations of Behavioral Research (New York: Holt, Rinehart and Winston, Inc., 1973), p. 495.

⁵⁰ Cutlip and Center, pp. 128-129.

CHAPTER II

METHODOLOGY

Likert-Summated Scales

Literature on the definition and measurement of attitudes is extensive and embodies differing points of view. Mildred Parten said the best-known techniques for attitude scale development are contained in Likert questions.⁵¹ The Likert scale is unique because of its scoring procedure.⁵²

The Likert scale uses a summated rating scale. A summated rating scale is a set of attitude items, all considered of approximately equal attitude value, to which subjects respond with degrees (intensity) of agreement. The scale item scores are summated and averaged to yield a single-item score. Kerlinger said the purpose of the summated rating scale is to place an individual somewhere on an agreement continuum of the attitude in question.⁵³

Summated rating scales allow for intensity of attitude expression. The advantage of subjects agreeing or disagreeing strongly is a greater variance of results. Response variance with five or seven categories of response is greater than with two or three categories.⁵⁴

Construction of the Questionnaire

A 28-item questionnaire (Appendix A) was constructed for the survey. Questions 1, 2, 3, and 4 asked demographic information on sex, age, faculty rank, and military background. These items are the independent variables used for analysis.

The remaining 24 items are Likert-scaled statements. Respondents were asked to indicate their intensity of agreement, from "strongly agree" to "strongly disagree." A seven-point scale was used in order to achieve a larger variance of responses and a more precise mean score. The 24 statements were divided into three informal areas: (1) statements concerning ROTC, (2) statements concerning the military on a larger scale, i.e., national defense, draft, and service to country, and (3) statements concerning academic advising. These statements are the dependent variables.

Survey statements on ROTC are subjects discussed in Army War College studies, many of which have been previously cited. Parten's chapter, "Construction of the Schedule or Questionnaire," was used as a guide in developing questions.⁵⁵

The questionnaire was reviewed by 13 members of the University faculty for content, clarity, appropriateness, relevance, and validity of the questions as related to the study. Four faculty members were from the ROTC faculty. The other nine faculty members consisted of seven from the College of Arts and Science, one from the Graduate College, and a statistician from the College of Agriculture.

Selection of the Sample

The population was all South Dakota State University faculty serving as academic advisers as of December, 1977. A computer list of these advisers was obtained from Student Services. The population included faculty holding ranks from assistant [instructor] to full professor.

The population consisted of 340 advisers. Thirty-eight, however, advised in more than one college. Duplicates were removed.

Administration of the Questionnaire

Parten said returns from mail questionnaires are usually quite small.⁵⁶ Wayne Gerber and Anthony J. McMichael, writing in Public Opinion Quarterly, said low response rates are a major drawback of questionnaires.⁵⁷ Kerlinger said returns of 40 to 50 percent are common and, at best, the researcher must content himself with a 50 to 60 percent return.⁵⁸

Mail questionnaires have some advantages over other research tools. They are inexpensive. The mail questionnaire permits the researcher to contact great numbers of respondents. Questionnaires can yield standardized responses that adapt readily to standardized coding. The result of this is rapid analysis.⁵⁹

Respondents were requested in the cover letter (Appendix B) to leave their names attached to returned surveys so their names could be checked from a master list.

The questionnaire was sent through campus mail on 23 January 1978. One week later, a second questionnaire was sent to those who did not respond. A note was added to the cover letter of the second questionnaire, explaining the purpose of the second mailing.

Eleven of the 302 academic advisers were not able to respond to the survey because of sabbatical leaves, so the number of questionnaires was adjusted to 291. Of these, 246, or 85 percent, were returned.

Coding

Coded information (responses) was transferred to optic scan sheets which were read by an IBM 1230 Optic Mark Reader. The reader was connected to a key-punch machine which punched the 246 data cards.

Computer Assisted Analysis

The study was initially analyzed through the Statistical Package for the Social Sciences⁶⁰ for frequency counts on an IBM 370 model 148 computer at South Dakota State University's Data Processing Center. The frequency analysis provided total numbers answering each question, relative and cumulative frequencies, and statistics such as mean, mode, median, range, and standard deviation.

Following the frequency analysis, the data were analyzed, using a least-squares analysis of variance program.⁶¹ Analysis of variance is a way to assess the differences between means when more than two groups are involved.⁶² Analysis of variance tests for statistically significant variances coming from different sources of variation, e.g., a dependent variable has variance, some due to the experimental treatment, some to error, and some to other causes.⁶³

Least-squares adjusts the estimated means for unequal subclass numbers. This can best be explained by a simple example.

Height of six children in inches:

<u>Girls</u>	<u>Boys</u>
50	56
	56
50	56
	56

In the above problem, if one were asked the mean (\bar{x}) height of the six children, one would say 54 inches.

$$\bar{x} = \frac{\text{total } X}{N} = \frac{324}{6} = 54 \text{ inches.}$$

Least-squares, however, accounts for the disproportionate subclass numbers. The least-squares mean, therefore, is 53 inches.

In a second example of unequal subclass numbers:

. . . suppose the average monthly income of a sample of 200 men in a certain group is \$500 and a sample of 100 men in another group is \$300. The unweighted average, $(500 + 300)/2 = \$400$, is an excellent estimate of the mean salaries if the numbers of men in the two groups are about equal. However, if the numbers in the groups are proportional to the numbers in the sample, then the weighted mean, $[2(500) + (300)]/3 = \$433.64$

For this study, a four-way analysis of variance was performed, comparing the four independent variables with the dependent variable mean scores. The analysis also compared sex by age, sex by faculty rank, age by faculty rank, age by military service, and faculty rank by military service.

Footnotes

51 Mildred Parten, Surveys, Polls, and Samples: Practical Procedures, (New York: Cooper Square Publishers, Inc., 1950), p. 195.

52 *Ibid.*, p. 196.

53 Kerlinger, p. 496.

54 *Ibid.*

55 Parten, p. 157.

56 *Ibid.*, p. 392.

57 James S. House, Wayne Gerber, and Anthony J. McMichael, "Increasing Mail Questionnaire Response: A Controlled Replication and Extension," Public Opinion Quarterly (Spring 1977) 41:1.

58 Kerlinger, p. 414.

59 Robert L. Hoskins, and Susan H. Miller, "The Mail Survey," Journalism Educator (January 1976) 30:4.

60 Norman Nie, Dale Bent, and C. Hadlai Hull, SPSS: Statistical Package for the Social Sciences, (New York: McGraw-Hill Book Co., 1970).

61 Least-squares analysis of variance was used because of unequal (disproportionate) subclass numbers and/or missing subclasses. In this study, subclasses were unequal and some respondents failed to answer some statements [missing subclasses]. For a complete discussion of least-squares, see Robert G. D. Steel and James H. Torrie, Principles and Procedures of Statistics, (New York: McGraw-Hill Book Co., Inc., 1960), p. 256.

62 Curtis D. Hardyck and Lewis F. Petrino, Introduction to Statistics for the Behavioral Sciences, (Philadelphia, London, and Toronto: W. B. Saunders Company, 1976), p. 137.

63 Kerlinger, p. 147.

64 Steel and Torrie, p. 256.

CHAPTER III

ANALYSIS

The analysis of data in this survey is presented in two parts. The first deals with frequency counts and related statistics, the second with analysis of variance.

Frequency Counts

Of the 246 respondents, 191 or 77.6 percent were males.⁶⁵ More than 52 percent had no military background. The largest number of advisers, 34.7 percent, were in the age classification 30 to 39. The remaining age classifications, with corresponding percentages, were: 40 to 49, 26.9 percent; 50 to 59, 24 percent, 20 to 29, 7.9 percent, and 60 to 69, 6.6 percent.

More than 36 percent of the respondents were associate professors. The next largest groups were professors, 26.9 percent; assistant professors, 20.8 percent; instructors, 10.2 percent; and assistants, 1.2 percent. Advisers in the "other" category, [administrators, associate deans, and employees] comprised 4.5 percent.

Statements in the survey were divided into three groups: (1) ROTC, fourteen statements--numbers 5, 6, 7, 8, 11, 13, 15, 16, 18, 21, 22, 24, 26, and 27; (2) the military in general, seven statements--numbers 10, 12, 14, 17, 20, 23, and 25; and (3) academic advising, three statements--numbers 9, 19, and 28.

Frequency Counts - ROTC

The majority of South Dakota State University academic advisers strongly agreed that ROTC should be available on campus for students who wish to enroll. Over three-fourths (226) of the advisers said that ROTC should be voluntary rather than mandatory.

The advisers said they were not sufficiently informed about ROTC and that they needed more information than they had been receiving concerning ROTC. More than 95 percent of the advisers said they would refer students to ROTC personnel for answers to student questions on ROTC.

Fifty-nine percent of the advisers were in the agreement continuum of 1 to 3 that ROTC is an important part of South Dakota State University's curriculum. In support of this, 57 percent said students should receive academic credit for taking ROTC, and 64 percent said ROTC instructors should be given faculty rank.

Frequency Counts - Military

The United States should not reinstate a draft, according to 61 percent of the advisers. About 17 percent of the advisers agreed that the draft should be reinstated, and about 21 percent were neutral. In addition, 51 percent of the advisers selected a neutral position when asked if they thought every person should serve his or her country in some way.

Fifty-one percent said the Armed Forces are too small, although 57 percent said the national defense is adequate to maintain peace.

Fifty-seven percent of the advisers said military people are generally respected in society. Of those advisers with military experience, 64 percent said they had positive attitudes concerning the military.

Advisers were not sure if their government spends too much money advertising ROTC--42 percent said they were neutral.

Frequency Counts - Advising

South Dakota State University faculty said they enjoyed being academic advisers--more than 46 percent selected "strongly agree" when asked. Another 37 percent were in the agreement continuum of 2 and 3. Sixty-three percent of the advisers said the present system of advising should not be replaced by a system utilizing professional advisers. The advisers overwhelmingly--86 percent--stated that they play an important role in advising students.

Analysis of Variance

Null hypothesis restated: There is no significant difference in the responses of individuals in the survey because of differences among the respondents in sex, age classification, academic rank, or military background.

The null hypothesis was rejected at the .05 level of confidence⁶⁶ in 6 of the 24 statements. In four questions, more than one variable was significant at the .05 level, one with six variables showing a significant F ratio.

ROTC Should Be Voluntary

Table 3 shows the analysis of the statement, "ROTC should be voluntary." The advisers scored an overall mean score of 1.55 on the frequency analysis, prior to analysis of variance. The advisers strongly agreed that ROTC should be voluntary.

The analysis of variance showed significant means when sex by faculty rank and age by faculty rank were compared.

Sex by Rank

Male and female associate professors and professors provided the largest variance on this statement. Female associate professors and male professors scored much lower⁶⁷ frequency means than male professors and female professors [indicating ROTC should definitely be voluntary].

Although most advisers said ROTC should be voluntary, with an overall mean of 1.55, there was no pattern to their agreement. The means for females decreased from assistant to associate professor and increased at the professor level. The males' means, in contrast, increased from assistant to assistant professor, then decreased to form a typical bell curve.

Age by Rank

The largest variance was between 40 to 49-year-old and 60 to 69-year-old associate professors. The means also differed among professors in that age classification.

TABLE 3
ROTC SHOULD BE VOLUNTARY - $\bar{X} = 1.55^*$

Source	DF	Sum of Squares	Mean Squares	F
Sex	1	0.843	0.843	.648
Age	4	10.104	2.526	1.941
Rank	5	2.493	.498	.383
Service	1	.385	.385	.296
Sex X Age	4	7.56	1.89	1.45
Sex X Rank	5	16.10	3.22	2.47***
Age X Rank	11	33.09	3.00	2.31***
Age X Service	3	2.47	.824	.634
Rank X Service	4	4.66	1.16	.896

SEX X RANK ⁺⁺

	Male	Female
Assistant	.89	1.33
Instructor	1.61	1.05
Assistant Professor	2.12	1.02
Associate Professor	1.86	.99
Professor	.77	2.41

AGE X RANK ⁺⁺

	20-29	30-39	40-49	50-59	60-69
Assistant				1.46	
Instructor	1.03			1.11	
Assistant Professor	.98	1.61	1.80	2.06	1.41
Associate Professor		1.12	.97	1.50	3.32
Professor		1.58	2.44	2.62	.92

**Statistically significant at the .05 level of confidence. The H_0 is rejected.

*Means (\bar{X}) listed after table headings refer to frequency means, which were tabulated prior to the least squares analysis of variance.

++These figures represent least-squares means.

ROTC Should Be Mandatory

Academic advisers were asked to respond to essentially the same statement later in the survey. This statement, however, was reversed to read, "ROTC should be mandatory." Table 4 shows the results.

The frequency mean was 6.36.

The analysis of variance showed significant F values for age, sex by age, and age by rank. Age by rank was also significant when the statement read, "ROTC should be voluntary."

Age

In a one-way analysis, age proved significant. The younger the age, the higher the mean and the more unfavorable the response to this statement. This was true except for the advisers in the 30 to 39 age classification. Generally, however, the younger advisers said ROTC should not be mandatory. The older advisers, although agreeing, evidently were not as convinced on the subject.

Age by Sex and by Rank

Males and females in the 60 to 69 age classification disagreed. Males were more favorable toward mandatory ROTC than females. Younger males scored the highest and most unfavorable, older males, lowest and most favorable.

Associate professors and professors in the 60 to 69 age classification differed by over three mean points.

TABLE 4
ROTC SHOULD BE MANDATORY - $\bar{X} = 6.36^*$

Source	DF	Sum of Squares	Mean Squares	F
Sex	1	.248	.248	.146
Age	4	22.20	5.55	3.26***
Rank	5	4.46	.892	.525
Service	1	1.44	1.44	.850
Sex X Age	4	19.27	4.81	2.83***
Sex X Rank	5	12.81	2.56	1.50
Age X Rank	11	39.22	3.56	2.09***
Age X Service	3	7.64	2.54	1.49
Rank X Service	4	10.95	2.73	1.61

AGE ⁺⁺

Age	\bar{X}
20-29	8.21
30-39	6.25
40-49	6.33
50-59	6.03
60-69	5.80

SEX X AGE AND AGE X RANK ⁺⁺

Age	Male	Female	Asst.	Inst.	Asst. Prof.	Assoc. Prof.	Prof.
20-29	8.94	7.48		7.18	7.52		
30-39	6.72	5.79		6.09	6.36	6.69	6.91
40-49	6.29	6.37			6.28	7.00	6.08
50-59	5.87	6.19	6.52	6.53	5.25	6.45	5.83
60-69	4.20	7.40			6.13	4.07	7.39

*Frequency mean.

**Statistically significant at the .05 level of confidence. The H_0 is rejected.

++These figures represent least-squares means.

ROTC Should Not Be Eliminated

Table 5 shows the results of the statement, "ROTC should not be eliminated from this campus." The frequency response mean of this statement was 1.87, meaning advisers generally agreed to this statement.

TABLE 5
ROTC SHOULD NOT BE ELIMINATED FROM THIS CAMPUS - $\bar{X} = 1.87^*$

Source	DF	Sum of Squares	Mean Squares	F
Sex	1	2.01	2.01	1.01
Age	4	10.85	2.71	1.37
Rank	5	8.30	1.66	.839
Service	1	7.70	7.70	3.89***
Sex X Age	4	3.96	.990	.500
Sex X Rank	5	6.92	1.38	.699
Age X Rank	11	14.73	1.33	.676
Age X Service	3	9.35	3.11	1.57
Rank X Service	4	7.44	1.86	.939

SERVICE (MILITARY BACKGROUND) **	
Source	\bar{X}
No Military Background	2.46
Military Background	1.50

*Frequency mean.

**Statistically significant at the .05 level of confidence. The H_0 is rejected.

**These figures represent least-squares means.

Service

Service,⁶⁸ or military background, was significant at the .05 level. Academic advisers with military backgrounds agreed strongly, compared to advisers with no military background. The difference in the means was almost one point.

This correlated with the statement concerning whether the advisers' military experience left them with a positive experience (Appendix A, question 20). The frequency mean for this statement was 3.00. Advisers generally felt positive toward their military background. Twenty-five percent of the advisers having military backgrounds marked "strongly agree," while 22 percent checked the second choice.

Although advisers with no military experience said ROTC should remain on campus, the 114 advisers having military experience were much more positive about ROTC remaining on campus.

If Asked, I Would Be Able to Give Information

Table 6 shows the response to the statement, "If asked, I would be able to give students information about ROTC." The frequency mean was 3.18.

Age

The analysis of variance showed age was significant with an F value of 2.67.

TABLE 6

IF ASKED, I WOULD BE ABLE TO GIVE STUDENTS INFORMATION
ABOUT ROTC - $\bar{X} = 3.18^*$

Source	DF	Sum of Squares	Mean Squares	F
Sex	1	2.32	2.32	.909
Age	4	26.84	6.71	2.67***
Rank	5	23.56	4.71	1.84
Service	1	3.67	3.67	1.43
Sex X Age	4	4.88	1.22	.478
Sex X Rank	5	10.34	2.06	.810
Age X Rank	11	30.38	2.76	1.08
Age X Service	3	19.01	6.33	2.48
Rank X Service	4	10.87	2.71	1.06

AGE ++

Age	\bar{X}
20-29	5.26
30-39	3.90
40-49	3.39
50-59	3.01
60-69	3.13

*Frequency mean.

**Statistically significant at the .05 level of confidence. The H_0 is rejected.

††These figures represent least-squares means.

Like the mandatory ROTC statement in Table 4, the respondents answered nearly inversely according to age with the exception of advisers in the 50 to 59 age classification. The youngest respondents, those in the 20 to 29 age classification, had a mean of 5.26, meaning they could not give students ROTC information.

The difference between the mean scores of the advisers in the 20 to 29 age classification and those in the 50 to 59 and 60 to 69 age classifications was over two points.

The Armed Forces of the United States Are Too Small

Table 7 shows the results of the statement, "The Armed Forces of the United States are too small."

In the survey, this statement read "too large," but for coding purposes, the scores were reversed on the scale and the statement reworded.

The frequency mean was 3.25.

Sex by age and age by service were significant for this statement.

Sex by Age

For this statement, the lower the mean, the more the advisers agreed that the Armed Forces were too small. The male advisers' means varied with age classification, with the older advisers agreeing more than did each preceding age classification.

TABLE 7
THE ARMED FORCES OF THE UNITED STATES ARE TOO SMALL -
 $\bar{X} = 3.25^*$

Source	DF	Sum of Squares	Mean Squares	F
Sex	1	.087	.087	.031
Age	4	14.04	3.51	1.24
Rank	5	4.00	.800	.283
Service	1	.096	.096	.034
Sex X Age	4	28.33	7.08	2.50***
Sex X Rank	5	22.84	4.56	1.61
Age X Rank	11	34.55	3.14	1.11
Age X Service	3	22.50	7.50	2.65***
Rank X Service	4	20.51	5.12	1.81

SEX X AGE AND AGE X SERVICE ⁺⁺

Age	Male	Female	Mil Background	None
20-29	3.86	3.75		3.75
30-39	3.60	1.85	2.19	3.26
40-49	3.37	3.86	4.19	3.04
50-59	3.27	3.23	3.13	3.37
60-69	3.00	5.70	4.64	4.05

* Frequency mean.

** Statistically significant at the .05 level of confidence. The H_0 is rejected.

++ These figures represent least-squares means.

One of the largest variances occurred between males and females in the 30 to 39 age classification. Females in that age classification scored 1.85, strongly agreeing to the statement. Their mean score differed by almost two points from the mean scores of the females in the 20 to 29 and 40 to 49 age classifications.

There was no pattern in the females' mean scores on this statement. The scores range from high (3.75), to low (1.85), to high (3.86), to low (3.23), to high (5.70). The variance between males and females in the 60 to 69 age classification was 2.70 points.

Age by Service

Academic advisers in the 60 to 69 age classification disagreed the strongest that the Armed Forces were too small. In that age classification, those advisers with military background disagreed more strongly.

Academic Advisers Play An Important Role

Table 8 shows the results of the statement, "Academic advisers play an important role in advising students." The statement's frequency mean was 2.13.

All four independent variables, as well as sex by rank and rank by service, were significant. In addition, four analyses were significant at the .01 level of confidence. No other statements in the survey were significant at the .01 level.

TABLE 8

ACADEMIC ADVISERS PLAY AN IMPORTANT ROLE IN
ADVISING STUDENTS - $\bar{X} = 2.13^*$

Source	DF	Sum of Squares	Mean Squares	F
Sex	1	13.47	13.47	8.80***
Age	4	15.61	3.90	2.55***
Rank	5	18.72	3.74	2.44***
Service	1	23.77	23.77	15.41***
Sex X Age	4	7.45	1.86	1.21
Age X Rank	5	24.77	4.95	3.23 ^{t++}
Sex X Rank	11	29.06	2.64	1.72
Age X Service	3	5.00	1.66	1.09
Rank X Service	4	27.30	6.82	4.46***
<u>SEX⁺⁺</u>		<u>AGE⁺⁺</u>	<u>RANK⁺⁺</u>	<u>SERVICE⁺⁺</u>
Male	2.58	20-29	1.94	Assistant
Female	.79	30-39	.85	Instructor
		40-49	2.37	Asst. Prof.
		50-59	1.96	Assoc. Prof.
		60-69	1.30	Professor
<u>SEX X RANK AND RANK X SERVICE⁺⁺</u>				
<u>RANK</u>	<u>MALE</u>	<u>FEMALE</u>	<u>MILITARY BACKGROUND</u>	<u>NONE</u>
Assistant	2.65			2.02
Instructor	3.00	1.42	1.68	2.73
Asst. Prof.	2.04	1.71	1.96	1.79
Assoc. Prof.	2.56	1.86	2.05	2.37
Professor	2.03	3.35	2.26	3.12

*Frequency mean.

**Significant at the .05 level of confidence.

++These figures represent least-squares means.

+++Significant at the .01 level of confidence.

Sex (.01 significance)

Males and females differed in the amount of their agreement by almost two points. Female academic advisers strongly agreed that they play an important role in advising students, while their male counterparts agreed, but not nearly as much.

Age

There was a large variance in the age classifications 30 to 39 and 40 to 49. The 30 to 39 age classification strongly agreed on this issue, while the 40 to 49 age classification agreed the least.

Rank

Of all faculty ranks, professors agreed the least. Their 2.69 mean was the highest of the one-way analyses of this statement. Assistants agreed strongly to this statement.

Service (.01 significance)

Academic advisers with military backgrounds strongly agreed that they play an important role advising students. Advisers with no military backgrounds were in less agreement on this statement, although they agreed.

Sex by Rank and Rank by Service
(.01 significance)

There was large variance between males and females in the instructor and professor ranks. Instructors with military backgrounds and those without military backgrounds disagreed on importance of the role they play advising students.

Analyses Compared

Davis' 1970 study at the University of Oklahoma,⁶⁹ involving 331 faculty, covered five similar areas. Table 9 shows Davis' results compared to those of this study.

TABLE 9

A COMPARATIVE STUDY OF THE ATTITUDES OF . . . UNIVERSITY
FACULTY TOWARD THE ROTC PROGRAMS ON THE CAMPUS OF
THE UNIVERSITY OF OKLAHOMA AND SDSU

Statement	Strongly [†]						
	Agree	Agree	Neutral	Disagree	Strongly Disagree		
<u>ROTC IMPORTANT</u>	1 [‡]	2	3	4	5	6	7
Davis	29.9%		28.7%	17.5%	15.4%	8.5%	
Monrad	22%	15%	22%	21%	6%	9%	5%
<u>VOLUNTARY ROTC</u>							
Davis	75.8%		17.5%	2.4%	3.6%	.6%	
Monrad	75%	11%	6%	4%	2%	1%	1%
<u>ACADEMIC CREDIT FOR ROTC</u>							
Davis	13.9%		28.1%	13%	23.9%	21.2%	
Monrad	24%	23%	20%	13%	7%	5%	9%
<u>FACULTY RANK FOR ROTC INSTRUCTORS</u>							
Davis			34% [§]	24%	42%		
Monrad			64% [§]	14%	23%		
<u>ROTC SHOULD BE OFFERED</u>							
Davis			7%	9%	12%		
Monrad			8%	11%	4%		

[†]Davis used a five-point scale. A seven-point scale was used in this study.

[‡]Davis tabulated, then summarized these statements in agree, neutral, and disagree categories. For comparison, the results of the questions in this study were summarized, i.e., 1, 2, and 3 were summarized into one percentage for "agree."

Footnotes

⁶⁵The completed questionnaire with results is Appendix A.

⁶⁶Values for F were checked against a "Degrees of Freedom for Critical Values of F" chart (Appendix C). The chart, which may be found in most statistics books, lists degrees of freedom for numerators (listed under DF column on the following tables) for a denominator of 200, which is the closest number for the "n" of cases for this study. If the F is higher than the critical value in the chart, the probability is less than .05 that the result is due to chance or, that which would be expected to occur less than five percent by chance. For interpretation of F, the logic is basically the same as that used with the normal curve. If one were to randomly draw three samples from a normally distributed population, compute both the variance estimate within groups, and then compute the F, the value of F is the ratio of the between variance estimate to the within variance estimate. If the H_0 is true, all the variance will be due to the variance within groups, and any variance due to differences between groups is assumed to be the result of chance sampling deviation. When the F-ratio is larger than the tabled 5 percent value, one can reject the H_0 at the .05 level of significance since an F ratio as large as the one obtained would occur less than 5 percent of the time when the null hypothesis is true.

⁶⁷The "lowest" score on the scale used was "1" or strongly agree. The "highest" was "7" or strongly disagree. For discussion, scores are also described as favorable and unfavorable toward ROTC.

⁶⁸Service is military service, also referred to as military background. In the survey, advisers were asked to check specific areas of military service, e.g., ROTC classes, National Guard, or active duty. For the analysis of variance, the answers were recorded as "having military background" or "not having military background."

⁶⁹Davis, p. 91, 99, 107, 138, 147.

CHAPTER IV

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

The Problem

The purpose of the study is to determine attitudes of university faculty academic advisers at South Dakota State University toward the Reserve Officers Training Corps. The problem statement was, "Do academic advisers' attitudes toward ROTC vary according to sex, age, faculty rank, and military background?" The population of academic advisers was surveyed. The survey resulted in a response of 85 percent.

Studies quoted in Chapter I pointed out that the most important factor influencing overall attitude toward ROTC was the attitude of members of the faculty and key members of the administration. A survey of students from 90 institutions showed that 23.8 percent considered encouragement from college professors as the most important element in attaining higher ROTC enrollment. ROTC enrollment, although increasing nationally, was below required levels at South Dakota State University, decreasing from more than 900 in 1970 to less than 300 in 1977.

The Design and Procedure of the Study

A 28-item questionnaire was constructed for the survey. Questions asked demographic information on sex, age, faculty rank, and military background. Twenty-four Likert-scaled statements were used

to obtain respondents' attitudes on ROTC, the military in general, and academic advising.

The questionnaire was mailed to all academic advisers. Eighty-five percent, or 246, of the academic advisers answered the survey.

Major Findings

South Dakota State University academic advisers said ROTC should be offered to students. Fifty-four percent strongly agreed, while 86 percent were in the agreement continuum of 1 to 3. Ninety-seven percent said they would refer students to ROTC personnel if they did not have ROTC information requested by the students.

Advisers were not sure they could do a good job giving their advisees information on ROTC. Nearly 50 percent were in the disagreement continuum on the statement that academic advisers are informed about ROTC. Fifty-seven percent of the advisers said they needed more information on ROTC.

Of the statements concerning the military, the most negative responses--considering the generally favorable attitudes toward ROTC--concerned reinstatement of a draft and citizen's service (obligation to serve). Even at the time of this study, when the success or failure of the all-volunteer force concept is yet to be established, more than 60 percent of the advisers said the United States should not reinstate a draft. Service to country had a more positive response--although 34 percent disagreed and 21 percent were neutral on the concept of some form of voluntary service to country.

Academic advisers said they enjoyed advising; they played an important role in advising students; and the system of advising students should not be replaced.

Conclusions

Through an analysis of data, the following conclusions were reached:

The null hypothesis--there is no significant difference in the responses of individuals in the survey because of differences among the respondents in sex, age classification, academic rank, or military background--is rejected for the following statements:

1. ROTC should be voluntary.
2. ROTC should be mandatory.
3. ROTC should be eliminated from this campus.
4. If asked, I would be able to give students information about ROTC.
5. The Armed Forces of the United States are too small.
6. Academic advisers play an important role in advising students.

For the above statements, sex, age, faculty rank, and military background do make a difference in the respondents' answers. For the remaining statements, the null hypothesis can neither be rejected nor proven.⁷⁰

Other general conclusions, based on the author's interpretations, are:

1. Academic advisers have favorable attitudes toward ROTC.

2. Academic advisers favor voluntary, rather than mandatory, ROTC.
3. Academic advisers are not sufficiently informed about ROTC, and many need more ROTC information.
4. If asked, advisers would be able to give students information on ROTC. If they did not have the information, they would refer students to ROTC personnel.
5. Academic advisers agree that academic credit should be given to students enrolled in ROTC.
6. Academic advisers agree that ROTC instructors should be given faculty rank.
7. Military experience left academic advisers with positive attitudes concerning the military.
8. Academic advisers enjoy advising, perceive themselves as playing an important role advising students, and favor the present advising system.
9. Academic advisers agree that ROTC is an important part of South Dakota State University's curriculum.

Respondents' Comments Relating to Conclusions

Many academic advisers wrote comments explaining reasons for their answers to certain questions. The following comments reflect the general conclusions.

"I have strongly supported ROTC at SDSU, but have been frustrated because I didn't know how to sell the program. Somehow, even though I felt positive about the program, I did not feel that I was an effective advocate."

"ROTC should be available for those interested. However, I am not aware of programs offered . . . "

"I have great respect for most military persons who have dedicated their lives to service. My life's experiences have been marvelous with the military (29 years)."

"I think academic advising is a crucial role and feel quite strongly that not enough credit is given to those who do an outstanding job of advising. In terms of the military and ROTC, I feel excessive funds have been spent in advertising and recruitment. I strongly respect the wishes and opinions of my students concerning military service."

"Full time advisers replacing us in science areas do not and can not know the job needs and opportunities and they would lack our professional contacts. I can motivate students . . . our job placement staff are very ineffective for science majors. Academic advising is very important. Military science is a real career field. Military preparedness, unfortunately, is essential for the U. S. as a democracy until human nature in the world changes."

"Having advised students for 22 years on this campus and observed the ROTC program during my undergraduate days, I feel strongly about the positive contribution that ROTC can make as an academic discipline on a university campus. I have found the leadership in ROTC, teaching staff over the years to be exceptional. Too bad that some of the university faculty don't do as well in their classrooms. The recent past and current attitude toward ROTC will gradually change. There are some fine opportunities for students in ROTC."

"Whether ROTC is a justified alternative to offer college students is a question of educational value. I have no objections, on the assumption that the program provides the student with a broadened education. I do not think it should be required unless we go again to a draft or other involuntary method of gaining a military force. I, as an adviser, treat ROTC like any other course options."

"I enjoy being an academic adviser; however, I believe that a professional staff of advisers would benefit all concerned. While not thrilled with my military experience, I feel that each individual should decide for him/herself whether ROTC will be beneficial."

"As an academic adviser in General Registration, I feel it is my responsibility to help students explore as many avenues of study as they find of interest to them. Although ROTC would never appeal to me personally, I feel that it does offer students an opportunity to explore military service as a potential career."

"You should disregard the response of those who do not have ROTC or military background and knowledge."

"The social status of the military including ROTC largely depends on current events. During times of peace or during unpopular wars, such as Vietnam, the military is held in low regard in much of the society. However, ROTC can be a source of income and support for the low income student making his education possible. For this reason, and this reason alone, ROTC is a valuable asset to the university."

"I don't feel professional advisers would help departments, however, I am too busy to do the best job with each student."

"I would enjoy being an academic adviser if I did not have such an unrealistic heavy load otherwise. As it is, I don't have the time to do a good job of advising."

"I do enjoy being an adviser. I have gotten to know my advisees very well through informal meetings. It does take a lot of time but I feel it is worth it in most cases."

"Unfortunately, too many students want career advice from the academic adviser and are unwilling to go to an appropriate source when recommended. I think that academic advising is necessary within a college--but it sure seems to take up too much time."

Those who are not in favor of ROTC--or those who would not have chosen the military for themselves--still respect their students' wishes relating to ROTC. None of the advisers said they would attempt to persuade a student against ROTC. On the contrary, the advisers said they would assist students in gaining whatever career choices the students desired.

Recommendations

South Dakota State University ROTC units should consider developing a public relations program aimed at informing academic advisers. In setting up this program, ROTC personnel might consider the following:

1. Academic advisers at South Dakota State University have favorable attitudes toward ROTC.

2. Academic advisers are receptive toward receiving additional ROTC information.

3. Academic advisers enjoy advising students under the present system of advising. One might infer that advisers enjoy working with and guiding students in their academic endeavors.

The above considerations might benefit from a public relations campaign. ROTC personnel should attempt to reach students through academic advisers.

The analysis of variance provides information concerning attitudes of specific subgroups of academic advisers who expressed unfavorable attitudes toward ROTC. These advisers should receive special consideration in any public relations campaign.

1. Academic advisers in the age classification 20 to 29 said they would not be able to give students information about ROTC. The reason could be a lack of ROTC information rather than unfavorable attitudes toward ROTC.

2. Female professors and those females in the 60 to 69 age classification gave unfavorable responses to statements concerning voluntary, and conversely, mandatory ROTC. When responding to the statement concerning mandatory ROTC, only the 20 to 29-year-old advisers disagreed more than these 60 to 69-year-olds.

3. Female professors responded least favorably to the statement, "Academic advisers play an important role in advising students." Male instructors responded more unfavorably than female instructors.

4. Academic advisers with no military background responded more unfavorably than those with military background to the statement, "ROTC should not be eliminated from campus." Again, the reason could be a lack of understanding toward the military.

5. In another statement, although not statistically significant at the .05 level of significance,⁷¹ advisers with military backgrounds were less sure that military people are respected in society. However, these advisers were generally positive concerning their military experience.

Implications for Further Research

In view of the restricted sampling (one university), additional studies might focus on a wider variety of colleges and universities throughout the United States.

Additional studies might focus also on why different segments of the academic adviser population have different attitudes toward ROTC. For example, this study showed that younger advisers were more negative toward ROTC, and some older advisers were negative toward ROTC. Did the Vietnam war have a negative influence on the 25 to 35-year-olds--an influence that remains today? Did the Vietnam era affect older advisers who had experienced World War II?

Once refined, a research tool similar to this study could be standardized by Department of Defense and distributed to all ROTC units. Periodic evaluations could be made of advisers' attitudes, knowledge, and need for information concerning ROTC. This is especially important if fewer and fewer faculty at universities and colleges have military backgrounds.

Footnotes

⁷⁰The statements are shown in Appendix D with their corresponding F ratios.

⁷¹This statement's F ratio was 3.73, just below the 3.89 necessary to be significant at the .05 level of significance.

APPENDIX A

Please mark the appropriate spaces.

1. Sex: <u>191</u> <u>(78%)</u> Male	2. Age: <u>19</u> <u>(7.9)</u> 20-29	<u>65</u> <u>(26.9)</u> 40-49	<u>16</u> <u>(6.6)</u> 60-69
<u>54</u> <u>(22)</u> Female	<u>84</u> <u>(34.7)</u> 30-39	<u>58</u> <u>(24)</u> 50-59	

3. What is your status: <u>3(1.2)</u> Assistant	<u>89(36.3)</u> Assoc. Professor
<u>25(10.2)</u> Instructor	<u>66(26.9)</u> Professor
<u>51(20.8)</u> Assistant Professor	<u>11(4.5)</u> Other (Administrator, Dean, Employee)

4. Military background: <u>128(52.5)</u> None (check all applicable)	<u>17(7.0)</u> ROTC or military academy classes*
	<u>14(5.7)</u> Reserves or National Guard*
	<u>85(34.8)</u> Active Duty*

*If a respondent checked "ROTC" and Active Duty, only Active Duty was coded.

Please use the following key to respond to the following statements.

SA = Strongly Agree

SD = Strongly Disagree

The range of 1 2 3 4 5 6 7 is given so you may check the appropriate number indicating the intensity of your agreement, from Strongly Agree (1) to Strongly Disagree (7).

5. Reserve Officer Training Corps (ROTC) should be available on campus for students who wish to enroll.

<u>133</u>	<u>46</u>	<u>32</u>	<u>27</u>	<u>2</u>	<u>2</u>	<u>4</u>
SA <u>(54)</u>	<u>1</u>	<u>(19)</u>	<u>2</u>	<u>(13)</u>	<u>3</u>	<u>(11)</u>

$\bar{X} = 1.94$

6. ROTC is an important part of SDSU's curriculum.

<u>54</u>	<u>36</u>	<u>55</u>	<u>51</u>	<u>14</u>	<u>23</u>	<u>13</u>
SA <u>(22)</u>	<u>1</u>	<u>(15)</u>	<u>2</u>	<u>(22)</u>	<u>3</u>	<u>(21)</u>

$\bar{X} = 3.22$

() = % rounded to nearest number. The percent is the adjusted frequency percent leaving out missing cases.

7. ROTC should be voluntary.

185 26 15 9 5 3 3
 SA (75)1 (11)2 (6)3 (4)4 (2)5 (1)6 (1)7 SD $\bar{x} = 1.55$

8. Most academic advisers are sufficiently informed about ROTC.

10 24 33 59 36 55 28
 SA (4)1 (10)2 (14)3 (24)4 (15)5 (22)6 (11)7 SD $\bar{x} = 4.48$

9. The present system of advising students should be replaced with a system utilizing full-time professional advisers.

24 13 16 27 11 43 110
 SA (10)1 (5)2 (7)3 (11)4 (5)5 (18)6 (45)7 SD $\bar{x} = 5.28$

10.* The federal government does not spend too much money advertising ROTC.

22 32 29 101 31 16 11
 SA (9)1 (13)2 (12)3 (42)4 (13)5 (7)6 (5)7 SD $\bar{x} = 3.74$

11.* ROTC should not be eliminated from this campus.

151 42 11 29 4 5 4
 SA (61)1 (17)2 (5)3 (12)4 (2)5 (2)6 (2)7 SD $\bar{x} = 1.87$

12. Military people are generally respected in society.

22 63 54 62 26 14 4
 SA (9)1 (26)2 (22)3 (25)4 (11)5 (6)6 (2)7 SD $\bar{x} = 3.26$

13. Students should be able to receive a minor in Military Science.

23 41 33 69 18 35 23
 SA (10)1 (17)2 (14)3 (29)4 (7)5 (15)6 (10)7 SD $\bar{x} = 3.88$

14.* The Armed Forces of the United States are too small.

49 44 31 69 20 15 12
 SA (20)1 (18)2 (13)3 (22)4 (8)5 (6)6 (5)7 SD $\bar{x} = 3.25$

15. If asked, I would be able to give students information about ROTC.

44 64 51 29 20 24 14
 SA (18)1 (26)2 (21)3 (12)4 (8)5 (10)6 (6)7 SD $\bar{x} = 3.18$

*In the survey, questions 10, 11, and 14 read the opposite, e.g., . . . spends too much, rather than . . . does not spend too much.

() = % rounded to nearest number.

16. If I did Not have the information (refer to question 15), I would refer the student to ROTC personnel.

195 35 8 3 1 1 3
 SA (80)1 (14)2 (3)3 (1)4 (.4)5 (.4)6 (1)7 SD $\bar{X} = 1.35$

17. National defense of this country is adequate to maintain peace.

47 41 45 53 20 14 14
 SA (20)1 (18)2 (19)3 (23)4 (9)5 (6)6 (6)7 SD $\bar{X} = 3.23$

18. Academic advisers need more information than they presently receive concerning ROTC.

25 34 57 54 27 37 10
 SA (10)1 (14)2 (23)3 (22)4 (11)5 (15)6 (4)7 SD $\bar{X} = 3.71$

19. Academic advisers play an important role in advising students.

103 65 42 20 9 3 3
 SA (42)1 (27)2 (17)3 (8)4 (4)5 (1)6 (1)7 SD $\bar{X} = 2.13$

20. My military experience left me with a positive attitude concerning the military.

32 28 22 21 9 10 6 118
 SA (25)1 (22)2 (17)3 (16)4 (7)5 (8)6 (5)7 SD (48)

Not Applicable $\bar{X} = 3.00$

21. ROTC should be mandatory.

5 2 11 13 7 19 189
 SA (2)1 (.8)2 (5)3 (5)4 (3)5 (8)6 (77)7 SD $\bar{X} = 6.36$

22. Academic credit should be given to students taking ROTC.

59 57 48 33 17 11 21
 SA (24)1 (23)2 (20)3 (13)4 (7)5 (5)6 (9)7 SD $\bar{X} = 3.03$

23. The United States should reinstate a draft.

10 12 20 51 27 31 90
 SA (4)1 (5)2 (8)3 (21)4 (11)5 (13)6 (37)7 SD $\bar{X} = 5.18$

() = % rounded to nearest number.

24. ROTC instructors should be given faculty rank provided they hold the appropriate degree.

49 57 49 33 12 21 21
 SA (20)1 (24)2 (20)3 (14)4 (5)5 (9)6 (9)7 SD $\bar{X} = 3.20$

25. Every person, who is physically and mentally able, should serve his/her country in some way (e.g., military service, Peace Corps, VISTA, or some other voluntary service).

44 29 38 51 11 24 46
 SA (18)1 (12)2 (16)3 (21)4 (5)5 (10)6 (19)7 SD $\bar{X} = 3.87$

26. Educators should have the same role in deciding ROTC curricula as they do in deciding any other curricula.

41 22 45 47 21 36 30
 SA (17)1 (9)2 (19)3 (20)4 (9)5 (15)6 (12)7 SD $\bar{X} = 3.88$

27. I would volunteer ROTC information to a student without being asked.

44 36 35 50 30 26 23
 SA (18)1 (15)2 (14)3 (21)4 (12)5 (11)6 (9)7 SD $\bar{X} = 3.63$

28. I enjoy being an academic adviser.

114 60 30 24 7 6 3
 SA (47)1 (25)2 (12)3 (10)4 (3)5 (3)6 (1)7 SD $\bar{X} = 2.09$

REMARKS:

() = % rounded to nearest number.

APPENDIX B

23 January 1978

Dear Faculty Member:

Will you spare five minutes of your time for a graduate student in need of your help?

I am a South Dakota State University graduate student in Journalism and Mass Communication. As part of my thesis, I am conducting a survey of all SDSU faculty who are academic advisers.

Will you please complete the attached questionnaire and send it to me today?

PLEASE LEAVE YOUR NAME (gummed label) ATTACHED TO THE SURVEY when you return it in the enclosed envelope. When I receive the survey, I will check off your name from my master list. I will then remove your name, assuring that the questionnaire will remain anonymous.

I am striving for a 100 percent return, thus the reason for monitoring the names of those returning the survey.

Thank you for your assistance.

Sincerely,

TERRY M. NONRAD
Department of Journalism
and Mass Communication

P.S.
You may send the envelope
through campus mail.

APPENDIX C

CRITICAL VALUES OF F FOR
DENOMINATOR OF 200

	Degrees of Freedom for Numerator					
	1	2	3	4	5	11
.05*	3.89	3.04	2.65	2.41	2.26	1.83
.01*	6.76	4.71	3.88	3.41	3.11	2.34

*Level of significance.

Source: G. W. Snedecor and William G. Cochran, Statistical Methods, 6th ed., Iowa State University Press, 1967, quoted in Ferguson, p. 489.

APPENDIX D

QUESTIONS NOT SIGNIFICANT AT THE
.05 LEVEL OF CONFIDENCE

ROTC should be available on campus for students who wish to enroll.

Source	D.F.	Sum of Squares	Mean Squares	F
Sex	1	0.000002	0.000002	0.000
Age	4	8.433071	2.108268	1.332
Rank	5	12.695215	2.739043	1.730
Service	1	0.871295	0.871295	0.550
Sex X Age	4	3.645059	0.911265	0.576
Sex X Rank	5	8.2533607	1.650721	1.043
Age X Rank	11	16.118668	1.465333	0.926
Age X Service	3	7.551722	2.517241	1.590
Rank X Service	4	6.842057	1.710514	1.081

ROTC is an important part of SDSU's curriculum.

Source	D.F.	Sum of Squares	Mean Squares	F
Sex	1	0.626887	0.626887	0.210
Age	4	19.831248	4.957812	1.662
Rank	5	5.165277	1.033055	0.346
Service	1	0.106815	0.106815	0.036
Sex X Age	4	12.820378	3.205095	1.074
Sex X Rank	5	9.128482	1.825696	0.612
Age X Rank	11	26.508815	2.409892	0.808
Age X Service	3	11.337824	3.779275	1.267
Rank X Service	4	10.044283	2.511071	0.842

Most academic advisers are sufficiently informed about ROTC.

Source	D.F.	Sum of Squares	Mean Squares	F
Sex	1	4.055253	4.055253	1.549
Age	4	10.629309	2.659827	1.016
Rank	5	10.324386	2.064877	0.789
Service	1	3.426484	3.246484	1.309
Sex X Age	4	11.985520	2.996380	1.145
Sex X Rank	5	15.951574	3.190315	1.219
Age X Rank	11	26.739574	2.430870	0.929
Age X Service	3	17.503985	5.834662	2.229
Rank X Service	4	5.364425	1.341106	0.512

Military people are generally respected in society.

Source	D.F.	Sum of Squares	Mean Squares	F
Sex	1	0.848635	0.848635	0.439
Age	4	4.116909	1.029227	0.532
Rank	5	8.936843	1.787369	0.924
Service	1	6.078630	6.078630	3.142
Sex X Age	4	12.528918	3.132229	1.619
Sex X Rank	5	9.736628	1.947326	1.006
Age X Rank	11	25.979118	2.361738	1.221
Age X Service	3	6.365554	2.121651	1.097
Rank X Service	4	5.886909	1.471727	0.761

The present system of advising students should be replaced with a system utilizing full-time professional advisers

Source	D.F.	Sum of Squares	Mean Squares	F
Sex	1	2.245644	2.245644	0.527
Age	4	34.552635	8.638159	2.025
Rank	5	45.498458	9.099692	2.133
Service	1	0.240100	0.240100	0.056
Sex X Age	4	30.881346	7.720337	1.810
Sex X Rank	5	26.874908	5.374981	1.260
Age X Rank	11	52.387217	4.762474	1.117
Age X Service	3	8.762210	2.920737	0.685
Rank X Service	4	17.506358	4.376590	1.026

The federal government (does not) spends too much money advertising ROTC.

Source	D.F.	Sum of Squares	Mean Squares	F
Sex	1	0.000856	0.000856	0.000
Age	4	14.154477	3.538619	1.583
Rank	5	4.514734	0.902947	0.404
Service	1	0.310742	0.310742	0.139
Sex X Age	4	5.225840	1.306460	0.584
Sex X Rank	5	10.116466	2.023293	0.905
Age X Rank	11	18.559089	1.687190	0.755
Age X Service	3	2.152819	0.717606	0.321
Rank X Service	4	8.183496	2.045874	0.915

Students should be able to receive a minor in Military Science.

Source	D.F.	Sum of Squares	Mean Squares	F
Sex	1	0.260893	0.260893	0.081
Age	4	3.793743	0.98436	0.294
Rank	5	11.316392	2.263278	0.702
Service	1	0.725151	0.725151	0.225
Sex X Age	4	11.494024	2.873506	0.891
Sex X Rank	5	11.733158	2.346632	0.727
Age X Rank	11	40.752498	3.704773	1.148
Age X Service	3	5.337375	1.779125	0.552
Rank X Service	4	4.791143	1.197786	0.371

If I did not have the information, I would refer the student to ROTC personnel.

Source	D.F.	Sum of Squares	Mean Squares	F
Sex	1	0.024039	0.024039	0.030
Age	4	0.746854	0.186714	0.230
Rank	5	0.425409	0.085082	0.105
Service	1	0.295430	0.295430	0.364
Sex X Age	4	1.134689	0.283672	0.349
Sex X Rank	5	1.249104	0.249821	0.307
Age X Rank	11	6.024596	0.547691	0.674
Age X Service	3	0.661545	0.220515	0.271
Rank X Service	4	0.370186	0.092546	0.114

Academic advisers need more information than they presently receive concerning ROTC.

Source	D.F.	Sum of Squares	Mean Squares	F
Sex	1	0.019231	0.019231	0.007
Age	4	5.684443	1.421111	0.511
Rank	5	4.881735	0.976347	0.351
Service	1	0.602083	0.602083	0.217
Sex X Age	4	15.992349	3.998087	1.439
Sex X Rank	5	10.115246	2.023049	0.728
Age X Rank	11	29.834985	2.712271	0.976
Age X Service	3	8.840835	2.946945	1.060
Rank X Service	4	2.068716	0.517179	0.186

Academic credit should be given to students taking ROTC.

Source	D.F.	Sum of Squares	Mean Squares	F
Sex	1	1.102693	1.102693	0.215
Age	4	2.737065	0.684266	0.195
Rank	5	5.473655	1.094731	0.313
Service	1	0.036515	0.036515	0.010
Sex X Age	4	11.187659	2.796915	0.799
Sex X Rank	5	7.526755	1.505351	0.430
Age X Rank	11	16.284536	1.480412	0.423
Age X Service	3	12.628919	4.209640	1.203
Rank X Service	4	2.849301	0.712325	0.203

The United States should reinstate a draft.

Source	D.F.	Sum of Squares	Mean Squares	F
Sex	1	2.485732	2.485732	0.758
Age	4	5.833021	1.458255	0.444
Rank	5	24.046791	4.809358	1.466
Service	1	0.583571	0.583571	0.178
Sex X Age	4	13.799091	3.449773	1.051
Sex X Rank	5	15.456475	3.091295	0.942
Age X Rank	11	21.387958	1.944360	0.593
Age X Service	3	1.383915	0.461305	0.141
Rank X Service	4	13.015504	3.251876	0.992

ROTC instructors should be given faculty rank provided they hold the appropriate degree.

Source	D.F.	Sum of Squares	Mean Squares	F
Sex	1	5.860089	5.860089	1.612
Age	4	14.663955	3.665989	1.008
Rank	5	2.482794	0.496559	0.137
Service	1	2.864864	2.864864	0.788
Sex X Age	4	8.749123	2.187281	0.602
Sex X Rank	5	7.365969	1.477194	0.406
Age X Rank	11	15.741121	1.431011	0.394
Age X Service	3	4.898251	1.632750	0.449
Rank X Service	4	3.650173	0.912543	0.251

Every person, who is physically and mentally able, should serve his/her country in some way
(e.g., military service, Peace Corps, VISTA, or some other voluntary service).

Source	D.F.	Sum of squares	Mean Squares	F
Sex	1	0.275628	0.275628	0.065
Age	4	14.066516	3.516629	0.829
Rank	5	35.588802	7.117760	1.678
Service	1	0.149461	0.149461	0.035
Sex X Age	4	8.001873	2.000468	0.472
Sex X Rank	5	10.883920	2.176784	0.513
Age X Rank	11	49.860382	4.532762	1.069
Age X Service	3	4.226699	1.408900	0.332
Rank X Service	4	11.131286	2.782821	0.656

Educators should have the same role in deciding ROTC curricula as they do
in deciding any other curricula.

Source	D.F.	Sum of Squares	Mean Squares	F
Sex	1	1.344030	1.344030	0.360
Age	4	24.415511	6.103878	1.637
Rank	5	10.367116	2.073423	0.556
Service	1	2.525408	2.525408	0.677
Sex X Age	4	8.903473	2.225868	0.597
Sex X Rank	5	5.769496	1.153899	0.309
Age X Rank	11	67.137878	6.103443	1.636
Age X Service	3	8.524352	2.841451	0.762
Rank X Service	4	4.167055	1.041764	0.279

I would volunteer ROTC information to a student without being asked.

Source	D.F.	Sum of Squares	Mean Squares	F
Sex	1	0.012607	0.012607	0.004
Age	4	6.819625	1.704906	0.497
Rank	5	13.147170	2.629434	0.767
Service	1	0.156788	0.156788	0.046
Sex X Age	4	10.977037	2.744259	0.800
Sex X Rank	5	22.337378	4.467476	1.303
Age X Rank	11	22.750407	2.068219	0.603
Age X Service	3	20.237492	6.745831	1.967
Rank X Service	4	13.579194	3.394799	0.990

I enjoy being an academic adviser.

Source	D.F.	Sum of Squares	Mean Squares	F
Sex	1	1.752061	1.752061	0.899
Age	4	1.997924	0.499481	0.256
Rank	5	4.200186	0.840037	0.431
Service	1	0.148163	0.148163	0.076
Sex X Age	4	8.770494	2.192624	1.125
Sex X Rank	5	3.223257	0.644651	0.331
Age X Rank	11	15.892790	1.444799	0.741
Age X Service	3	2.545336	0.848445	0.435
Rank X Service	4	2.118959	0.529740	0.272

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